AMENDMENTS TO THE CLAIMS

- 1. (original) Method for deadlock free altering of a network routing from a first routing function R_{old} , defining an established connection between a plurality of communication input ports $I_1, ..., I_n$ and output ports $O_1, ..., O_m$, in a network element, to a second routing function R_{new} , defining an new connection between the said input and output ports, for execution by the network element for transmitting and receiving data packets, said method comprising:
- (1) for each input port Ii, performing the following steps:
- (1a) applying the first routing function R_{old} for the input port,
 - (1b) receiving a token on an input port Ii,
- (1c) applying the second routing function R_{new} for the input port $I_{\rm i}$,
- (1d) forwarding data packets to every output port O_j associated with the input port I_i according to the second routing function R_{new} , provided that the output port O_j has transmitted the token,
- (2) for each output port O_i, performing the following steps;
- (2a) determining if the token has been received on all input ports associated with the output port $O_{\rm j}$ according to the first routing function $R_{\rm old}$,
- (2b) transmitting the token on the output port O_j when the token has been received on all said input ports.

- 2. (original) Method according to claim 1, wherein the network element is a switch.
- 3. (original) Method according to claim 1 or 2, wherein the token is included in a data packet.
- 4. (currently amended) Method according to one of the claims 1-3 claim 1, wherein the method is applied to deterministic routing functions.
- 5. (currently amended) Method according to one of the claims, 1-4 claim 1, wherein the method is applied to adaptive routing functions.
- 6. (currently amended) Method according to one of the claims

 1 5 claim 1, wherein the method is applied to source routing.
- 7. (original) Method according to claim 5, wherein if the adaptive method gives rise to a cyclic dependency graph, the graph is pruned into a non-cyclic one before the method is applied.

- 8. (currently amended) Method according to one of the claims

 1 7 claim 1, wherein the method is applied to only parts of a
 complete network.
 - 9. (currently amended) Network element, comprising
- a plurality of output ports for transmitting data packets to other network elements in a network,
- a plurality of input ports for receiving data packets from other network elements in the network,
 - a processing device,
 - a memory ,

characterized in that the processing device is arranged to perform a method according to one of the claims 1 8 claim 1.

- 10. (original) Network element according to claim 9, wherein said routing functions are implemented as tables stored in said memory.
- 11. (original) Network element according to one of the claims 9 or 10, wherein said memory comprises computer program instructions arranged to perform said method when executed by said processing device.

- 12. (original) Computer network system, comprising a number of network elements according to claim 9.
- 13. (currently amended) Computer program, embodied on a storage medium or in a memory, or carried by a propagated signal, for execution by a processing device in a network element,

characterized in that the program comprises a set of instructions arranged to perform a method according to one of the claims 1-8 claim 1 when executed by the processing device in the network element.